

## ABSTRACT OF THE DISCLOSURE

Additional data is embedded in a printed image in a way that makes the additional data unrecognizable to eyes and recognizable without fail by an image input apparatus. An image processing apparatus of the present invention has: an average calculation unit as a density value detection part that detects the density value of a predetermined color component of image data representing a nearby image in the vicinity of an image to which additional data is to be added; a pattern selection unit that decides a pattern which is larger in area at the larger density value detected by the average calculation unit and has a shape corresponding to the value of the additional data to be added to the image; and an addition processing unit that superimposes the pattern decided by the pattern selection unit on image data representing the image.